CLAIMS

What is claimed is:

1   1.   An intelligent interactive call handling system, comprising:

2   a central office operable to trigger a query responsive to receiving a

3 call request for a called party;

4   a service control point coupled to the central office, the service control

5 point operable to receive the query, and trigger an internet call routing query;

6   an internet call routing system coupled to the service control point, the

7 internet call routing system being operable to receive the internet call routing query,

8 determine presence of the called party with respect to at least one registered

9 communication device, send a prompt to the called party at said at least one registered

10 communication device responsive to the presence determination, receive a reply from

11 said at least one registered communication device, and route the call responsive to the

12 reply.

1   2.   The system of claim 1, further comprising a certificate authority

2 coupled to the internet call routing system, the certificate authority being operable to

3 authenticate the called party by searching a customer database for current subscription

4 and payment information.

1   3.   The system of claim 1, further comprising a presence engine coupled

2 to the internet call routing system, the presence engine being operable to determine

3 the presence of any of said at least one registered communication device.

1   4.   The system of claim 1, wherein the internet call routing query

2   comprises an account number associated with the called party, a phone number

3   associated with the called party, a registration identification associated with the called

4   party, and a certificate associated with the called party.

1   5.   The system of claim 1, further comprising a gateway coupled between

2   the service control point and the internet call routing system, the gateway being

3   operable to translate protocols between the signaling system-7 protocol and the

4   internet protocol.

1   6.   The system of claim 1, further comprising at least one of a short

2   message service server, an electronic mail server, an instant messaging server and a

3   simple object access protocol server, said server(s) being coupled to the internet call

4   routing system, and being operable to forward the prompt to a registered

5   communication device responsive to instructions from the internet call routing

6   system.

1   7.   An internet call routing system, comprising:

2   receive logic operable to receive a call query from a service control

3   point via a gateway;

4   presence logic coupled to the receive logic, the presence logic being

5   operable to determine whether a called party associated with the call query is present

6   with respect to at least one registered communication device associated with the

7   called party;

8   user-interface logic coupled to the presence logic, the user-interface

9   logic being operable send a prompt to the called party via said at least one registered

10   communication device responsive to the presence determination, and receive a reply

11   from the called party; and

12   forwarding logic coupled to the user interface logic, the forwarding

13   logic being operable to forward a call associated with the call query responsive to the

14   reply.

1   8.   The system of claim 7, further comprising:

2   a database operable to store a profile associated with the called party

3   including a list comprising said at least one registered communication device, the

4   database being operable to provide the list associated with the called party to the

5   presence logic.

1   9.   The system of claim 7, wherein the user-interface logic comprises at

2   least one of a short message server, an electronic mail server, a simple object access

3   protocol server, and an instant messaging server.

1   10.   The system of claim 7, wherein the call query comprises an account

2   number associated with the called party, a phone number associated with the called

3   party, a registration identification associated with the called party, and a certificate

4   associated with the called party.

1   11.   The system of claim 10, further comprising authentication logic

2   coupled to the receive logic operable to employ the certificate associated with the

3   called party to authenticate the called party.

1   12.   The system of claim 11, wherein the authentication logic authenticates

2   the called party, and assures that the called party continues to subscribe to a service

3   provided by the internet call routing system.

1   13.   The system of claim 7, further comprising a rules engine, the rules

2   engine being coupled to the presence logic, the rules engine being operable to parse at

3   least one rule associated with the called party, and the user-interface logic is operable

4   to send a prompt to the called party via said at least one registered communication

5   device responsive to the presence determination and rules engine, and receive a reply

6   from the called party.

1   14.   The system of claim 7, wherein said at least one registered

2   communication device comprises at least one of a cellular phone and an internet

3   protocol phone.

1   15.   A method of providing intelligent interactive call handling, comprising

2   the steps of:

3   receiving a call query from a service control point via a gateway;

4   determining whether a called party associated with the call query is

5   present with respect to at least one registered communication device associated with

6   the called party;

7   sending a prompt to the called party via said at least one registered

8   communication device responsive to the presence determination;

9   receiving a reply from the called party via said at least one registered

10   communication device; and

11   connecting the call responsive to the reply.

1   16.   The method of claim 15, wherein the method further comprises:

2   storing a profile associated with the called party including a list

3   comprising said at least one registered communication device, the database being

4   operable to provide the list associated with the called party to the presence logic.

1   17.   The method of claim 16, wherein the method further comprises:

2   storing a profile associated with the called party, the profile also

3   including at least one rule for sending the prompt to the called party.

1   18.   The method of claim 17, further comprising:

2   parsing said at least one rule prior to sending the prompt to the called

3   party; and

4   sending a message to the called party via said at least one registered

5 communication device responsive to the parsing and the presence determination.

1   19.   The method of claim 18, wherein the prompt is an internet-based

2 message.

1   20.   The method of claim 15, further comprising:

2   using at least one of a short message server, an electronic mail server, a

3 simple object access protocol server, and an instant messaging server, to send the

4 message to the called party via said at least one registered communication device

5 responsive to the presence determination..

1   21.   The method of claim 20, wherein said at least one registered

2 communication device includes at least one of a cellular phone and an internet

3 protocol phone.

1   22.   The method of claim 15, wherein the call query comprises an account

2 number associated with the called party, a phone number associated with the called

3 party, a registration identification associated with the called party, and a certificate

4 associated with the called party.

1   23.   The method of claim 22, further comprising using the certificate

2 associated with the called party to authenticate the called party.

1   24.   A method of providing intelligent interactive call handling, comprising

2   the steps of:

3   receiving a call query from a service control point via a gateway;

4   determining whether a called party associated with the call query is

5   present with respect to at least one registered communication device associated with

6   the called party;

7   sending a prompt to the called party via said at least one registered

8   communication device responsive to the presence determination;

9   receiving a reply from the called party via said at least one registered

10   communication device; and

11   connecting the call responsive to the reply.

1   25.   The method of claim 24, wherein the method further comprises:

2   storing a profile associated with the called party including a list

3   comprising said at least one registered communication device, the database being

4   operable to provide the list associated with the called party to the presence logic.

1   26.   The method of claim 25, wherein the method further comprises:

2   storing a profile associated with the called party, the profile also

3   including at least one rule for sending the prompt to the called party.

1   27.   The method of claim 26, further comprising:

2   parsing said at least one rule prior to sending the prompt to the called

3   party; and

4   sending a message to the called party via said at least one registered

5 communication device responsive to the parsing and the presence determination.

1   28.   The method of claim 27, wherein the prompt is an internet-based

2 message.

1   29.   The method of claim 24, further comprising:

2   using at least one of a short message server, an electronic mail server, a

3 simple object access protocol server, and an instant messaging server, to send the

4 message to the called party via said at least one registered communication device

5 responsive to the presence determination..

1   30.   The method of claim 29, wherein said at least one registered

2 communication device includes at least one of a cellular phone and an internet

3 protocol phone.

1   31.   The method of claim 24, wherein the call query comprises an account

2 number associated with the called party, a phone number associated with the called

3 party, a registration identification associated with the called party, and a certificate

4 associated with the called party.

1   32.   The method of claim 31, further comprising using the certificate

2 associated with the called party to authenticate the called party.